

# Questionable Cause

*cum hoc ergo propter hoc*

(also known as: butterfly logic, ignoring a common cause, neglecting a common cause, confusing correlation and causation, confusing cause and effect, false cause, third cause, third-cause fallacy, juxtaposition [form of], reversing causality/wrong direction [form of])

**Description:** Concluding that one thing caused another, simply because they are regularly associated.

**Logical Form:**

*A is regularly associated with B; therefore, A causes B.*

**Example #1:**

*Every time I go to sleep, the sun goes down. Therefore, my going to sleep causes the sun to set.*

**Explanation:** I hope the fallacious reasoning here is very clear and needs no explanation.

**Example #2:**

*Many homosexuals have AIDS. Therefore, homosexuality causes AIDS.*

**Explanation:** While AIDS is found in a much larger percentage of the homosexual population than in the heterosexual population, we cannot conclude that homosexuality is the cause of AIDS, any more than we can conclude that heterosexuality is the cause of pregnancy.

**Exception:** When strong evidence is provided for causation, it is not a fallacy.

**Variation:** The *juxtaposition fallacy* is putting two items/ideas together, implying a causal connection, but never actually stating that one exists.

*It's funny how whenever you are around, the room smells bad.*

*Reversing causality* or *wrong direction* is just what it sounds like -- it is still a false cause, but the specific case where one claims something like the sun sets because night time is coming.

**References:**

Johnson, R. H., & Blair, J. A. (2006). *Logical Self-defense*. IDEA.